

REMARKS

Claims 1, 2, and 4–16 are pending in this application. By this Amendment, claim 1 is amended. Support for the amendment to the claim 1 may be found, for example, in the specification at page 38, line 6 to page 39, line 9. No new matter is added.

Entry of the amendments is proper under 37 CFR §1.116 because the amendments: (a) place the application in condition for allowance (for the reasons discussed herein); (b) do not raise any new issue requiring further search and/or consideration; (c) do not present any additional claims without canceling a corresponding number of finally rejected claims; and (d) place the application in better form for appeal, should an appeal be necessary. The amendments are necessary and were not earlier presented because they are made in response to arguments raised in the final rejection. Entry of the amendments is thus respectfully requested.

In view of the foregoing amendments and following remarks, reconsideration and allowance are respectfully requested.

I. Rejections Under 35 U.S.C. §103

A. Ishii in view of Ogawa

The Office rejects claims 1, 2, and 4–16 under 35 U.S.C. §103(a) as obvious over U.S. Patent Application Publication No. 2004/0121017 to Ishii et al. ("Ishii") in view of U.S. Patent No. 4,891,119 to Ogawa ("Ogawa"). Applicants respectfully traverse the rejection.

Ishii is not available as prior art against the instant claims. The present application claims priority benefit of JP 2003-080388, filed March 24, 2003. As is evident from the translation of JP 2003-080388 attached hereto, the pending claims are fully supported by JP 2003-080388. Accordingly, the pending claims are entitled to the benefit of the March 24, 2003 filing date of JP 2003-080388.

Ishii was published on June 24, 2004. As Ishii was published after the March 24, 2003 effective filing date of the present application, Ishii is not available as prior art against the present application under 35 U.S.C. §102(a) or §102(b).

Ishii was filed on July 22, 2003, and claims priority to JP 2002-362002, filed on December 13, 2002. Accordingly, the earliest date on which Ishii could be available as prior art under 35 U.S.C. §102(e) is July 22, 2003. As the earliest date on which Ishii could be available as prior art under §102(e) is after the March 24, 2003 effective filing date of the present application, Ishii is not available as prior art against the present application under §102(e).

For the foregoing reasons, Ishii is not available as prior art against the instant claims. Accordingly, withdrawal of the rejection is respectfully requested.

B. Akashi in view of Ogawa

The Office Action rejects claims 1, 2, 4–9 and 11–16 under 35 U.S.C. §103(a) as obvious over U.S. Patent No. 6,287,485 to Akashi et al. ("Akashi") in view of Ogawa. Applicants respectfully traverse the rejection.

The Office Action concedes that Akashi does not expressly disclose “at least one other polymer compound” that “is at least partially soluble in the liquid” as required by claims 1, 12, and 13. The Office Action relies on Ogawa for its alleged disclosure of a water-soluble polymer dispersed within a three-dimensional crosslinked polymer structure to cure the deficiency of Akashi. *See* Office Action at page 6, lines 9–15.

Ogawa discloses a gel medium for electrophoresis, wherein the whole body is a bulk gel. The gel cannot expand because there is no liquid around the gel. Because there is no liquid around the gel, the gel is subject to drying out. Therefore, Ogawa discloses adding a water-soluble polymer to impart elasticity to the gel medium even if it is dried, in order to prevent the gel from becoming brittle and breaking. *See* Ogawa at column 4, lines 3–8.

The Office Action asserts that one of ordinary skill in the art would have been motivated to use the water-soluble polymer of Ogawa in the optical device of Akashi in order to impart elasticity to the medium even when it is dried. *See* Office Action at page 6, lines 16–20.

However, Akashi discloses a polymer gel capable of changing volume by absorbing or releasing a liquid in response to an externally applied stimulus. *See*, e.g., Akashi at column 4, lines 56–66. The polymer gel disclosed by Akashi is surrounded by a liquid and, thus, is not subject to drying out like the gel disclosed by Ogawa. Therefore, one skilled in the art would not have been motivated to modify the gel disclosed by Akashi with the water-soluble polymer disclosed by Ogawa, because the gel disclosed by Akashi is not subject to drying up. Likewise, the polymer compounds of claims 1, 12, and 13, are also dispersed in a liquid and, thus, are not subject to drying-out problems.

Accordingly, one of ordinary skill in the art would not have been motivated to combine the Ogawa and Akashi references. Without the requisite motivation to combine references, it cannot be said that Akashi and Ogawa would have rendered obvious the subject matter of claims 1, 12, and 13.

Claim 1, 12, and 13 would not have been rendered obvious by Akashi and Ogawa. Claims 2, 4–11, and 14–16 variously depend from claims 1, 12, and 13 and, thus, also would not have been rendered obvious by Akashi and Ogawa. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

C. Ilmain in view of Ogawa

The Office Action rejects claims 1, 2, 4–9, and 14 under 35 U.S.C. §103(a) as obvious over Frank Ilmain et al., *Nature*, vol. 349, page 400 (1991) ("Ilmain") in view of Ogawa. Applicants respectfully traverse the rejection.

The Office Action concedes that Ilmain does not expressly disclose “at least one other polymer compound” that “is at least partially soluble in the liquid” as required by claim 1.

The Office Action relies on Ogawa for its alleged disclosure of a water-soluble polymer dispersed within a three-dimensional crosslinked polymer structure to cure the deficiency of Akashi. *See* Office Action at page 7, lines 7–13.

For the reasons discussed above, there is no motivation to combine Ilmain and Ogawa because the gel disclosed by Ilmain is not subject to drying up. Without the requisite motivation to combine references, it cannot be said that Ilmain and Ogawa would have rendered obvious the subject matter of claim 1.

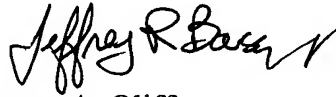
Claim 1 would not have been rendered obvious by Ilmain and Ogawa. Claims 2, 4–9, and 14 depend from claim 1 and, thus, also would not have been rendered obvious by Ilmain and Ogawa. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

II. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1, 2, and 4–16 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachment:

English-language translation of JP 2003-080388

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